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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/157,884	09/21/1998	ANDRES VEGA-GARCIA	777.179US1	3059

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EXAMINER

PRIETO, BEATRIZ

ART UNIT PAPER NUMBER

2142

DATE MAILED: 02/11/2003

25

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/157,884

Applicant(s)

VEGA-GARCIA ET AL.

Examiner

B. Prieto

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,18-26,28,29 and 31-42 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.

- 6) ☒ Claim(s) 1,2,4-8,18-26,28,29 and 31-42 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. This communication is in response to Amendment filed 01/06/03, claims 1-2, 4-8, 18-26, 28-29 and 31-42 remain pending in this application.
2. On the remarks of the above-mentioned amendment, Applicant indicated that a Declaration under 37 CFR §1.131 to swear behind the Bar et. al. reference will be filed as soon as available. This noted, Applicant was extended a courtesy telephone call (Kelton, M. Reg. No. 44,182 on 02/06/03) to determine if the said declaration had been filed, in order for it to be fully considered prior to issuing hereby office action. Applicant indicated that due to the numerous inventor's of instant application, to this date such declaration has not been completed and therefore has not been filed.
3. Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous action;
4. Claims 1-2, 4-8, 18-26, 28-29 are 31-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et. al. (Smith) U.S. Patent No. 6,128,649 in view of Clapp et. al. (Clapp) U.S. Patent No. 5,802,281 in further view of Bar et. al. (Bar) U.S. Patent No. 6,122,665.

Regarding claims 1 and 21, specifically in regards claim 1, Smith teach features of the invention substantially as claimed, Smith teach a system/method in a network conferencing environment (see abstract, col 1/lines 64-67) for delivering a plurality of video or audio media data type signals (see Figs. 1-5a, audio and/or video media streams, col 3/lines 20-35) the system comprising;

transmitting a set of media data streams on to the network, set of media data streams generated from the plurality of video or audio type signals (abstract, video streams, distributing audio/video streams across the network, col 1/lines 53-67);

transmitting means include means for removing silences from said data streams of the audio signals transmitted by the transmitter (identifying silence stream, col 9/lines 5-9, removing said identified streams from data audio transmission stream by closing audio channel from originator);

a receiver for receiving the set of data stream from the network (col 20/lines 11-col 21/line 25, transmission/reception processing modules), the receiver including a selectively routing, filtering or separating media streams (i.e. demultiplexing) means (multiplexing (1) means, col 1/lines 53-62, Fig. 21) for dynamically selecting a subset of the set of data streams (dynamic selection (13), means, col 6/lines

49-col 7/line 26, dynamic selection of multiple media streams, see abstract, and multiplexing means col 27/lines 31-55);

wherein received media data stream type is from respective first/second respective conference participant (Smith: participants receiving mixed or selected (audio/video type) subset media data streams associated with sent audio/video type media data stream over (2) network col 1/lines 53-col 2/line 6, Figs. 2-3, receiving audio/video means (26, 32) of Fig. 5b and rendering, i.e. displaying or outputting said selected subset) and recovering means for recovering the data streams into audio or video signal at one receiver (end-system) receiving the set of data streams (recovery means, col 23/lines 50-61); and

two or more receiver media data stream (payload) handler modules (col 20/line 11-col 21/line 25, transmission/reception processing modules, reception audio/video process modules, col 7/lines 35-48); specifically in regards to claim 21;

wherein said means for selectively routing, filtering or separating media streams (i.e. demultiplexing) is configured or conformed to handle, process or transport media streams to/from the a network media using real-time transport protocol (RTP) (col 21/lines 26-53, receiving/transmitting RTP media streams);

said selectively routing, filtering or separating media streams i.e. demultiplexing, including routing one or more RTP data streams of the portion based on data type (selecting a particular type of media streams from the plurality of media streams, col 1/lines 53-col 2/line 6);

two receiving (media-in portion 20, col 7/lines 35-39) including receivers coupled to said demultiplexing means for handling routed data streams (first reception means col 7/lines 58-67, having decoding (28) means, and second reception means col 8/lines 12-22);

two decoder modules coupled to the demultiplexing means for decoding routed data streams (col 20/lines 11-30); and

a rendering means coupled to the decoder for playing back one RTP data stream (col 20/lines 31-48);

transmitting (44, 43) means (col 8/lines 23-36, Fig. 5a (21), Fig. 5b (31, 36, 43)) for transmitting a set of data streams comprising audio (43) signals onto a network (col 8/line 56-61 means for transmitting a subset of audio streams)

wherein transmitting means include means for removing silences from said data streams (means for identifying silence stream, col 9/lines 5-9, removing streams from data audio transmission stream by closing audio channel from originator),

however Smith does not explicitly teach wherein said two decoder modules for decoding two particular types of the data streams,

Clapp teaches a computer system comprising two or more receiver payload handler modules and two or more corresponding decoder modules for handling and decoding two or more types of data (Fig. 5, (elements 150, 170, 102, 104, 70)), col 5/lines 1-5, 20-22), disclosing a system/method related to network conferencing peripherals adapted for stand alone use/operation with a host computer system (col 1/lines 7-13, col 6/lines 8-20).

Although the above-mentioned prior art teach dynamically selection a subset of the subset of data stream, prior art does not explicitly teach wherein the selection is based on a source identifier and a payload type;

Bar teaches Bar teaches means for demultiplexing means operatively coupled to one decoders for routing data to one of the decoders based on said data type and source identifier (col 6/lines 5-40, col 8/lines 64-col 9/line 7, elements 28, 32 of Fig. 2, data type determination Fig. 3A, step 3A, col 9/lines 33-48, synchronizing according to type, col 13/lines 3-31, filtering based on the type and selecting based on the source identifier, col 3/lines 50-col 4/line 29);

It would have been obvious to one ordinary skilled in the art at the time the invention was made to modify existing system with means for configuring two receiver payload handler modules and two corresponding decoder modules for handling and decoding two or more types of data, as taught by Clapp, motivation would be implement an audio/video communication peripheral of substantially reduced cost, compact and portable for effectuating video/audio conferencing which includes a plurality of decoders for standard types of data streams. Further, multiplexing based on the payload type and source identifier, as taught by Bar, motivation would be configure filtering means adaptable to process different types of audio/video media streams wherein based on the filtering capabilities a suitable type associated to the different types of media enable the selection of the decoders and rendering modules to be used on the conferencing system routing the different data streams accordingly in real-time.

Regarding claims 2, 4 and 8, combined teachings as discussed above, however do not explicitly teach wherein one of the payload handler modules handles audio G.711 data and another handles G723.1 data and one decoders for decoding audio G.711 data and another decoder for decoding audio G.723.1, comprising means for demultiplexing coupled to the two receiver payload handler modules for routing data to one of the receiver payload handlers based on data type, further comprising demultiplexing means coupled to the one decoders for routing data to one of the decoders based on data type;

Bar teaches means for demultiplexing means operatively coupled to one decoders for routing data to one of the decoders based on said data type (col 6/lines 5-40, col 8/lines 64-col 9/line 7, Fig. 2 (28, 32), col 9/lines 33-48); disclosing a computer system (Figs 1-7) comprising two or more payload modules for

receiving routed data stream, handlers coupled to the device (28) configured a process applied to combined multiplex signal for recovering signal combined within it and for restoring individual channels of the data type signals, demux to separate two or more combined signal, i.e. demultiplexing a RTP data type signal stream; wherein one of the handler modules handles audio data type G.711 data and another handles audio data type G.723.1 data and one decoder module, (Figs. 1-5) decodes audio data type G.711 data and another decodes audio data type G.723.1 data; separating stream means (38) coupled to the two receiver payload handler (28) modules for routing selected data to one of the corresponding relevant receiver payload handlers based on data type (col 9/lines 33-48, col 10/lines 21-47, selecting based on data type (60) for routing via corresponding respective channels to relevant received data handles (type base data selection means, col 2/lines 32-38, receiving selected data type means, col 3/lines 24-29, 50-61, routing by data type means, col 6/lines 5-40, routing data to decoders based on data type means, Bar: Fig. 3a, receiving/separating means (24) data type streams and routing to relevant component associated with data type stream, Fig. 2 (28), col 10/lines 21-47, col 8/lines 5-27, 50-56, col 8/line 66-col 9/line 7 routing data protocol type channel to decoders (104, 102) including RTP data type stream); Bar teaches Bar teaches means for demultiplexing means operatively coupled to one decoders for routing data to one of the decoders based on said data type and source identifier (col 6/lines 5-40, col 8/lines 64-col 9/line 7, elements 28, 32 of Fig. 2, data type determination Fig. 3A, step 3A, col 9/lines 33-48, synchronizing according to type, col 13/lines 3-31, filtering based on the type and selecting based on the source identifier, col 3/lines 50-col 4/line 29, based on data type and source identifier: col 6/lines 5-40, col 8/lines 64-col 9/line 7, elements 28, 32 of Fig. 2, data type determination Fig. 3A, step 3A, col 9/lines 33-48, synchronizing according to type, col 13/lines 3-31, filtering based on the type and selecting based on the source identifier, col 3/lines 50-col 4/line 29).

Regarding claim 5, the combined teachings as discussed above however do not explicitly teach for mixing an audio stream operatively coupled to the two or more corresponding decoders.

Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that a mixer was old and well known in the Data Processing art. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include a mixer for mixing audio stream, motivation would be to render a composite audio signal to the user.

Regarding claim 6, the combined teachings as discussed above, further including a means for rendering data stream obtained from said decoders; media rendering module operatively coupled to the one or more decoders (Clapp: Fig. 5, (122/140, 220, 74)), a high-speed output interface provides connectivity with the

separate host computer system for coordinating, in cooperation with video conferencing application software operating thereon, the presentation of local and remote video, abstract, col 4/lines 38-45, col 6/lines 21-43).

Regarding claim 7, the combined teachings as discussed above, wherein one or more of the payload handlers includes: means for reassembling or combining two or more data packets, means for reordering data packets (Clapp: col 21/lines 20-26).

Regarding claims 18 and 22, the combined teachings as discussed above, further teach a method of conducting a network conference with two or more computer systems (Clapp: col 4/lines 37-34, Fig. 1), comprising:

- receiving audio or video data from first and second computer systems (Clapp: Fig. 5, col 80, 78 and 82);

- determining the type of the audio or video data from the first computer system (Clapp: Fig. 5, (200) routing/separating means, col 8/lines 59-67 and 22/lines 57-59, 9/lines 8-18 and 21/lines 20-26),

- routing the audio or video data from the first computer system to a first decoder based on the determination of the type of audio or video data (Bar: col 8/lines 25-col 9/line 7),

- determining the type of the audio or video data from the second computer system (Bar: col 9/lines 33-48, col 10/lines 21-65); and

- routing the audio or video data from the second computer system to a second decoder based on the determination of the type of audio or video data: (Bar: col 8/lines 25-38, col 9/line 7);

- further monitoring incoming audio or video data for each of a plurality of conference parties for active or inactive status; (Bar: col 11/lines 10-50, col 7/lines 21-25);

- means for examining incoming (i.e. monitoring) audio or video data for each of a plurality of conference parties for active or inactive status (i.e. initiated session (Bar: col 11/lines 10-34, determining packet data status, col 3/lines 50-61 for an active status);

- monitoring means further comprising monitoring incoming audio or video data for a beginning, starting (i.e. new) participant, col 11/lines 10-50, wherein communication session include speaking participants, col 9/lines 11-20);

- wherein additionally Smith teach means for monitoring Fig. 5B, (33-35) incoming audio data for each of a plurality of conference parties for active or inactive status (Smith: means for determining whether one media streams is active, col 3/lines 61-col 4/line 11, stream activity monitoring/detection

means (33), determined stream activity state changes of a stream on the corresponding audio stream, col 9/lines 10-57, determining which said streams are silent or less active, Figs. 7-8);

monitoring means further comprise monitoring audio data for a new speaker: (new stream activity detection means, col 10/lines 44-col 11/line 19, stream activity associated with conference participant's GUI event (60, 70), col 9/lines 10-57);

replacing audio data having the inactive status with data of the new speaker; (Smith: means for substituting a set of data from another (third) conference participant with data set from a respective determined inactive participant, comprising means for determining (150) the most silent stream to be replace, wherein in response to a positive determination replacing (dropped) said most silent stream with said (third) stream, col 10/line 43-col 11/line 19, replacing a silent stream with a another (third) data set associated with another participant, mean for detecting most recent speaker and performing substitution steps, col 19/lines 3-45, Bar; means for monitoring means further comprising monitoring incoming audio or video data for a beginning, starting (i.e. new) participant, col 11/lines 10-50, wherein communication session include speaking participants, col 9/lines 11-20).

Regarding claim 19, the combined teachings as discussed above, the method of further comprising: decoding the audio or video data from the first and second computer systems (Clapp: col 9/lines 47-60, audio: col 22/lines 59-62) computer-readable medium comprising a first set of computer-executable instructions by which said decoders operate (Clapp: col 9/lines 47-60 (integrated circuit)), and rendering the audio or video data from the first and second computer systems (Clap: abstract, col 4/lines 38-45, col 6/lines 21-43, Fig. 5).

Regarding claim 20, the claim is substantially the same as claim 2, same rationale is applicable.

Regarding claim 23, the combined teachings as discussed above, teaches a network conferencing system comprising:

an separating/filtering means, i.e. demultiplexing means adapted to handle RTP data stream (RTP demultiplexer) for receiving and routing one or more RTP data streams based on data type; (Bar: separating stream means (38) coupled to the two receiver payload handler (28) modules for routing selected data to one of the corresponding relevant receiver payload handlers based on data type (col 9/lines 33-48, col 10/lines 21-47),

selecting based on data type (60) for routing via corresponding respective channels to relevant received data handles (type base data selection means, col 2/lines 32-38, receiving selected data type

means, col 3/lines 24-29, 50-61, routing by data type means, col 6/lines 5-40, routing data to decoders based on data type means, Bar: Fig. 3a, receiving/separating means (24) data type streams and routing to relevant component associated with data type stream, Fig. 2 (28), col 10/lines 21-47, col 8/lines 5-27, 50-56, col 8/line 66-col 9/line 7 routing data protocol type channel to decoders (104, 102) including RTP data type stream); and a rendering module (Clapp: col 6/lines 60-64) coupled to the decoder for playing back of said one RTP data streams).

Regarding claims 24-26 and 32, the combined teachings as discussed above further teach means for

receiving via a communication network a first and second set of data type from a first and second conference participants; (Smith: each participant (3) of a conference system sending audio/video type media streams over a communication (2) network,

each participants receiving mixed or selected subset of (audio/video type) media streams (Smith: col 1/lines 53-col 2/line 6, Figs. 2-3, receiving (reception) audio/video means (26, 32) of Fig. 5b);

selecting (Bar: filtering components (38, 40) determine media type col 9/lines 33-40) a subset of the plurality of audio media data streams (Bar: media data stream selected from a group of audio data, col 2/lines 32-37, selecting by type col 3/lines 25-34) including media data streams of different media data types (Bar: col 6/lines 5-20, selected subset in accordance with different media data stream voice types, channeled per media data stream type, col 7/lines 56-col 8/line 1 18-24);

routing (Bar: filtering (24) passes selected, filtering by type and passing said selected type col 7/lines 56-col 8/line 1 to corresponding relevant module (28) type, of Fig. 2), the selected subset of the plurality of audio media data stream to corresponding decoder modules (G.711, G.722, etc.,) in audio codec component (Bar: 102 of Fig. 2, col 13/lines 31-48) based on their media data stream type (Bar: Fig. 5, steps 3-5, determined type, col 10/lines 21-47, media type including standard categories, including audio standards, col 6/lines 5-20);

rendering, i.e. displaying/outputting said selected subset (Bar: Fig. 1, illustrating receiving means (16), selecting means (24), rendering means (36, 34) media data streams, displaying audio and/or video, col 5/lines 13-15));

decoding received-routed first/second type audio data stream in corresponding first/second decoder type (Bar: col 9/lines 33-48, col 10/lines 21-47, col 2/lines 32-38, col 6/lines 5-40, Fig. 3a, Fig. 2 (28), decoders (104, 102));

determining whether one of the first and second set of data type media stream from said first and second conference participant is associated with an inactive conference participant (Smith: means for

determining whether one media streams is active, col 3/lines 61-col 4/line 11, stream activity monitoring/detection means (33),

selection means based on at least two media streams in response to determination means, said determination means are based on the detection of a conference participant's GUI event (Smith: 60, 70 of Figs. 7-8), event is determined to relate to a state changes of a stream corresponding to a detection of activity on the corresponding audio stream, (Smith: col 9/lines 10-57, disclosing means for determining which said streams are silent or less active, Figs. 7-8);

responsive to said determination substituting a third set of data from a third conference participant with data set from respective inactive participant; (Smith: means for substituting a set of data from another (third) conference participant with data set from a respective determined inactive participant, comprising means for determining (150) the most silent stream to be replace, wherein in response to a positive determination replacing (dropped) said most silent stream with said (third) stream, col 10/line 43-col 11/line 19, replacing a silent stream with a another (third) data set associated with another participant);

demultiplexing means operatively coupled to one decoders for routing data to one of the decoders based on said data type and source identifier (Bar: col 6/lines 5-40, col 8/lines 64-col 9/line 7, elements 28, 32 of Fig. 2, data type determination Fig. 3A, step 3A, col 9/lines 33-48, synchronizing according to type, col 13/lines 3-31, filtering based on the type and selecting based on the source identifier, col 3/lines 50-col 4/line 29);

Regarding claims 28, this claim comprises limitations that are substantially the same as combined limitation of claims 25 and 27, same rationale is applicable.

Regarding claim 29, 31, this claim comprises limitations that are substantially the same as claim 26 and 28, respectively, same rationale is applicable.

Regarding claim 33, this claim comprises limitations that are substantially the same as combined claim 27, same rationale is applicable.

Regarding claims 34-36, the combined teachings as discussed above, further teach

wherein the selected subset includes a first video data stream formatted according to a first protocol an a second video data stream formatted according to a second protocol, wherein the data streams in the selected subset are most recently activate data streams (Smith: col 1/lines 63-col 2/line 2),

selection based on monitored activity, event detection data stream activity (Smith: col 19/lines 3-21, most recent audio data stream activity associated with a participant, col 19/lines 22-45, wherein the first and second sets of data streams are audio signal data of a multicast group of (e.g. dialogue) between two or more participants).

Regarding claims 37-42, synchronization source identifier (Bar: col 13/lines 3-24).

4. Claims 1, and 21 may additionally be rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et. al. (Smith) U.S. Patent No. 6,128,649 in view of Clapp et. al. (Clapp) U.S. Patent No. 5,802,281 in further view of Northlich, B. H.3.2 Centralized multipoint configuration, Feb. 1997.

Regarding claims 1 and 21, substantially the same as discussed above (e.g. claims 1 and 21), herein incorporated by reference, same rationale is applicable, however although the above mentioned prior art teach dynamically selection a subset of the subset of data stream, prior art does not explicitly teach wherein the selection is based on a source identifier and a payload type;

Northlich teaches means for demultiplexing streams (RTP) based on SSRC and payload type, as a clarification to the ITU Telecommunication Standard (H.323), to include streams of video and/or audio channels in a conference environment (see page 2).

It would have been obvious to one ordinary skilled in the relevant art at the time the invention was made to include means for selecting a subset of the set of data stream based on a source identifier and a payload, as taught by Northlich, motivation would be enable a terminal to support simultaneous session in multiple data stream types to mix both audio and/or video in a conferencing system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Mark R. Powell can be reached on (703) 305-9703. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6606. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this action should be mailed to:
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B. Prieto
TC 2100
Patent Examiner
February 8, 2003



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